

African fresh-water algae.—The fresh-water algae collected by the third Tanganyika Expedition (1904-5), under Dr. W. A. CUNNINGTON, have been reported by G. S. WEST.¹⁵ The collections were extensive and consisted largely of plankton obtained from the three great lakes (Nyasa, Victoria Nyanza, and Tanganyika). Some material was collected in swamps and swampy pools, and some of the most interesting algae were obtained from among the finely divided leaves of certain utricularias. The phytoplankton is first presented, and is peculiar in the absence of many genera which are a dominant feature of the European lake plankton. A table shows all the species observed in these African plankton collections, and this is followed by a discussion of the peculiarities of the plankton of each lake. The bulk of the report consists of the systematic account of the algae. The absence of Stigonemaceae is referred to as remarkable, Nostochopsis being the only representative of the family. Species of Hapalosiphon are of general occurrence in swamps and marshes, as well as certain bog-loving and rupestral species of Stigonema. The list of new forms includes 18 varieties, 36 species, and a new genus (*Sphinctosiphon*) of Palmellaceae. The total number of species is 372 (105 genera), and 122 of the 187 Chlorophyceae are Conjugales.

Certain conclusions are as follows: The algal flora of Tanganyika differs very much from that of the other lakes, but its peculiarities could be accounted for by prolonged isolation. The algae of Tanganyika showing marine affinities may have been produced by a gradual increase in the salinity of the water over an extended period. The relatively small proportion of Chlorophyceae in the plankton, as well as the large proportion of Bacillarieae and Myxophyceae (Cyanophyceae), is also an indication that the water of the lake was at one time more saline. In large bodies of fresh water, a single example of plankton from a given locality must not be regarded as representative of the plankton of the entire lake.—J. M. C.

California peach blight.—RALPH E. SMITH describes this disease as occurring in practically every part of California where peaches grow.¹⁶ It was first recorded in 1900 by PIERCE and has since increased largely. All varieties are affected. The buds and fruiting twigs die, the green twigs become spotted, and the leaves and fruit drop off. Gum exudes copiously, especially in wet weather, over the one-year-old fruiting twigs. Twigs which were sound and healthy in December were found to be spotted by the first of February. Spraying with Bordeaux mixture at the usual time was not effective, but spraying in December proved efficient, and the ordinary Bordeaux of the 5-5-50 strength of the lime-sulfur-salt mixture is recommended.

The fungus is referred to *Coryneum beyerinkii*. The mycelium produces spots on the leaves and shoots in winter and spore pustules near the center of these spots. Affected leaf tissue soon drops out, giving rise to "shot-holes." Conidia

¹⁵ WEST, G. S., Report on the fresh-water algae, including phytoplankton, of the third Tanganyika Expedition conducted by Dr. W. A. CUNNINGTON, 1904-5. Jour. Linn. Soc. Bot. 39:81-197. pls. 2-10. 1907.

¹⁶ Agr. Exper. Sta. Calif., Bull. 191. Sept. 1907.